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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/036,658	12/21/2001	Michael Brian Bonn	1777/39149	3742

7590 05/07/2004

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EXAMINER	
ELAHEE, MD S	

ART UNIT	PAPER NUMBER
2645	

DATE MAILED: 05/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/036,658	BONN ET AL.	
	Examiner	Art Unit	
	Md S Elahee	2645	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *03* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *19 and 20* is/are allowed.

6)☒ Claim(s) *1-18 & 21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This action is responsive to an amendment filed on 02/09/04. Claims 1-21 are pending.

Response to Arguments

2. Applicant's arguments with respect to claims 1-21 have been fully considered but are moot in view of the new ground(s) of rejection which is deemed appropriate to address all of the needs at this time.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-5, 11-14, 16, 17 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forson et al. (U.S. Patent No. 5,022,070) and in view of Suutari et al. (U.S. Patent No. 6,278,688).

Regarding claim 1, Forson teaches a hardware component (fig.1).

Forson further teaches data link for connecting the interface to the telephone switching system (fig.1; col.3, lines 41-58; 'data link' reads on the claim 'first connector').

Forson fails to teach second connector for connecting the interface to the telephone switching system. Suutari teaches backup channel (i.e., second connector) for connecting the

interface to the Local Exchange (i.e., telephone switching system) (fig.1a-2b; col., lines 40-42, col.3, lines 28-38). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Forson to allow second connector for connecting the interface to the telephone switching system as taught by Suutari. The motivation for the modification is to have doing so in order to provide the backup for the damaged channel.

Forson further teaches a data link for connecting the interface to the adjunct processor (fig.1; col.3, lines 41-58; 'data link' reads on the claim 'third connector').

Forson further teaches a software component including one data transmission link between the telephone switching system and the adjunct processor (fig.1; col.3, lines 41-68, col.4, lines 1-9).

Forson further fails to teach a software component including at least two data transmission links between the telephone switching system and the adjunct processor. Suutari teaches a software component including at least two signaling channels (i.e., data transmission links) between the Local Exchange (i.e., telephone switching system) and the Access Node (i.e., adjunct processor) (fig.1a-2b; col., lines 40-42, col.3, lines 28-38). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Forson to allow a software component including at least two data transmission links between the telephone switching system and the adjunct processor as taught by Suutari. The motivation for the modification is to have doing so in order to provide the redundancy of the channel.

Regarding claims 2 and 12, Forson teaches that the software alternates the transmission of data messages among the links (col.3, lines 41-68, col.4, lines 1-9, 15-23).

Regarding claims 3 and 13, Forson fails to teach that if one of the at least two transmission links fails, the software transmits the data messages along a remaining number of the links. Suutari teaches that if one of the at least two transmission links fails, the software transmits the PSTN signaling (i.e., data messages) along a remaining number of the links (fig.1a-2b; col., lines 35-42, col.3, lines 28-38). Thus, it would have been obvious to one of ordinary skill in the art to modify Forson to allow the software transmitting the data messages along a remaining number of the links in case of failure of the at least two links as taught by Suutari. The motivation for the modification is to have doing so in order to have a backup for the transmission of PSTN signaling.

Regarding claims 4 and 17, Forson teaches data messages are translated from API protocol to SMSI protocol (col.3, lines 58-62).

Regarding claims 5 and 14, Forson teaches that the software includes at least two device driver algorithms to filter erroneous frames from the data messages (col.2, lines 63-68, col.4, lines 1-9, col.7, lines 22-35, col.8, lines 9-16, 45-61, col.9, lines 3-8, 32-48).

Regarding claims 11 and 21, Forson teaches providing an interface, wherein the hardware of the interface includes at least a data link (i.e., 'first connector') for connecting the interface to the telephone switching system and a data link (i.e., third connector) for connecting the interface to the adjunct processor (fig.1; col.3, lines 41-58).

Forson fails to teach second connector for connecting the interface to the telephone switching system. Suutari teaches backup channel (i.e., second connector) for connecting the interface to the Local Exchange (i.e., telephone switching system) (fig.1a-2b; col., lines 40-42, col.3, lines 28-38). Thus, it would have been obvious to one of ordinary skill in the art at the time

the invention was made to modify Forson to allow second connector for connecting the interface to the telephone switching system as taught by Suutari. The motivation for the modification is to have doing so in order to provide the backup for the damaged channel.

Forson further teaches transmitting the data messages from the telephone switching system and the adjunct processor using multiple voice links (fig.1; col.3, lines 41-58; 'voice links' reads on the claim 'data transmission links').

5. Claims 6 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forson et al. (U.S. Patent No. 5,022,070) and in view of Suutari et al. (U.S. Patent No. 6,278,688) and further in view of Lin et al. (U.S. Pub. No. 2002/0156896).

Regarding claims 6 and 15, Forson in view of Suutari fails to teach that the software includes at least two protocol stack algorithms to validate the data messages. Lin teaches that the software includes at least two protocol stack algorithms to validate the data messages (page 2, paragraph 0026). Thus, it would have been obvious to one of ordinary skill in the art to modify Forson in view of Suutari to allow the software includes at least two protocol stack algorithms to validate the data messages as taught by Lin. The motivation for the modification is to have doing so in order to make confirmation that the data meets proper protocol.

6. Claims 7-10 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forson et al. (U.S. Patent No. 5,022,070) and in view of Suutari et al. (U.S. Patent No. 6,278,688) and further in view of Larsson (U.S. Pub. No. 2002/0051425).

Regarding claim 7, Forson in view of Suutari fails to teach that the software includes a splitting task which receives messages from the at least two protocol stack algorithms. Larsson teaches that the software includes a splitting means which receives messages from the at least

two protocol stack algorithms (page 3, paragraph 0039, page 6, paragraph 0064; 'splitting means' reads on the claim 'splitting task'). Thus, it would have been obvious to one of ordinary skill in the art to modify Forson in view of Suutari to allow the software including a splitting task which receives messages from the at least two protocol stack algorithms as taught by Larsson. The motivation for the modification is to have doing so in order to split the message packets into individual messages.

Regarding claim 8, Forson in view of Suutari fails to teach that the software includes a splitting task algorithm to split the data messages into subsets. Larsson teaches that the software includes a splitting means algorithm to split the data messages into subsets (page 3, paragraph 0039, page 6, paragraph 0064; 'splitting means' reads on the claim 'splitting task'). Thus, it would have been obvious to one of ordinary skill in the art to modify Forson in view of Suutari to allow the software including a splitting task algorithm to split the data messages into subsets as taught by Larsson. The motivation for the modification is to have doing so in order to split the message packets into individual messages.

Regarding claims 9 and 18, Forson in view of Suutari fails to teach that the software includes a combining task algorithm to combine data messages into sets. Larsson teaches that the software includes a combining task algorithm to combine data messages into sets (page 7, paragraphs 0069, 0070). Thus, it would have been obvious to one of ordinary skill in the art to modify Forson in view of Suutari to allow the software including a combining task algorithm to combine data messages into sets as taught by Larsson. The motivation for the modification is to have doing so in order to combine individual messages into the message packets.

Regarding claim 10, Forson in view of Suutari fails to teach that the software includes a combining task algorithm which alternates transmission of data messages on at least two links. Larsson teaches that the software includes a combining task algorithm which alternates transmission of data messages on at least two links into sets (page 3, paragraph 0039, page 7, paragraphs 0069, 0070). Thus, it would have been obvious to one of ordinary skill in the art to modify Forson in view of Suutari to allow the software including a combining task algorithm which alternates transmission of data messages on at least two links as taught by Larsson. The motivation for the modification is to have doing so in order to combine individual messages into the message packets.

Allowable Subject Matter

7. Claims 19 and 20 are allowed.

8. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 19, prior art fails to teach, transmitting a first data message set from the telephone switching system through a first port to a first device driver algorithm; transmitting a second data message set from the telephone switching system through a second port to a second device driver algorithm; transmitting the first data message set from the first device driver algorithm to a first protocol stack algorithm; transmitting the second data message set from the second device driver algorithm to a second protocol stack algorithm; transmitting the first data message set from the first protocol stack algorithm to a splitting task algorithm; transmitting the second data message set from the second protocol stack algorithm to the splitting task algorithm; splitting the first data message set and the second data message set into data message subsets;

transmitting the data message subsets an application task and translating the data message subsets into the second protocol. Claim 20 is dependent on claim 19.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ashdown et al. (U.S. Patent 6,625,273) teach System and method for a local number portability cache; McAllister et al. (U.S. Patent 5,978,450) teach Personal dial tone; Lorenzen et al. (U.S. Patent 6,188,759) teach Method and apparatus of processing a call in a telecommunications network and DeMent et al. (U.S. Patent 6,678,369) teach Network interface redundancy.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alam Elahee whose telephone number is (703) 305-4822. The examiner can normally be reached on Mon to Fri from 9:00am to 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang can be reached on (703) 305-4895. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4750.

M.E.

MD SHAFIUL ALAM ELAHEE
April 30, 2004

FAN TSANG
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